**Microbes are special too**

* On your individual page: ~~Place the information about which microbe you are~~ as well as the answers to the question in Activity 2. ~~Title it Classification of Marine Bacteria using Heading 1.~~
* On your team page: Collaborate on the information for Activity 1 and 3. Place the final answers on the team page. Be sure that the design for microbes in Activity 3 (question 5 and 6) are discussed by each member of the team on the team page. Title it Classification of Marine Bacteria using Heading 1.

**Activity 1:**

**Background information**

Find information that supports the following statements:

1. Microbes significantly impact our global climate. Microbes remove carbon dioxide from the atmosphere and by doing this it affects our climate change and state.
2. Marine microbes are very small and have been around for a long time. Scientists aren’t clear of microbes history and all of their functions.
3. Life on Earth could not exist without microbes. Microbes filter the air and without them life on earth would be a bit difficult.
4. Most marine microbes are beneficial. Marine microbes clear out carbon dioxide from the atmosphere into the ocean which keep our climate steady and keeps us healthy.
5. Microbes are everywhere. They are extremely abundant and diverse. Microbes are everywhere and even most likely undiscovered in places we haven’t yet figured to look and are getting discovered everyday.
6. There are new discoveries every day in the field of microbial oceanography. Yes.^

**Activity 2:**

**What microbe are you?**

Go to the following page and complete the quiz: <http://cmore.soest.hawaii.edu/education/kidskorner/ur_q1.htm>

1. ~~When finished take a screen shot, or copy and paste the information about the microbe most like you.~~
2. View the dichotomous key provided by your teacher. Answer the following:
   1. How are the steps in the dichotomous key organized? They are organized in order of imprtnace
   2. What is the purpose of a dichotomous key? To help distinguish what bacteria are classified under by their characteristics.
   3. What characteristics were used in the steps of the dichotomous key? Everyday things that we go through and shape our personality.
   4. Which bacteria are you most closely related to? Methanacoccus
   5. Which bacteria are you most different from? Pelagibacter

**Activity 3:**

**Design a microbe**

1. What characteristics must an ocean microbe have in order to survive? They must be able to reproduce a lot to keep their species going, they can shield themselves with a special coating from extreme conditions and they must be able to adapt with their surroundings easily.
2. What is density? Density is a unit of measure ment in which how tightly packed matter is per unit.
3. Why would density be an important characteristic for ocean microbes? How dense the microbes are most likely affect how and where they live in the ocean and how long their able to survive.
4. How are ocean microbes beneficial to the environment and life on Earth? Ocean microbes filter out the carbon dioxide from the atmosphere and help mammals and humans and other air breathing species to prosper.
5. Use common materials to design your microbe. What specific characteristics must it have and what materials did you choose to demonstrate those characteristics?
6. Describe what your environment looks like and the activities you would be doing as your microbe.